

GORNSHTEYN, B.Ya.; KOLLEROV, D.K.

Basic metrological problems of measurements with gas analyzers.
Izm. tekhn. no.12:37-39 D '64. (MIRA 18:4)

KOLLETOV, L. K., Docent

"Generator Gas in Agriculture of the USSR, Basic Sources and Methods for Obtaining It."
Thesis for degree of Dr. Technical Sci. Sub 1 Dec 50, Moscow Inst for Mechanization
and Electrification of Agriculture Imeni V. M. Molotov.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in
Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

KOLLEROV, L. K.

Technology

(Gazomotornye ustanovki) Equipment Powered by gas engines, (Moskva) Mashgiz., 1951.

9. Monthly List of Russian Accessions, Library of Congress, October 195⁴₂, Uncl.

XOLMEROV, L.K.; GUSEV, L.M., kandidat tekhnicheskikh nauk, retsenzent;
GRIBANOV, V.I., kandidat tekhnicheskikh nauk, retsenzent; GEMIN,
A.B., kandidat tekhnicheskikh nauk, redaktor; POL'SKAYA, R.G.,
tekhnicheskiiy redaktor

[Gas engine installations] Gasmotornye ustanovki. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1951. 238 p.
(Producers) (MIRA 9:8)

891814

KOLLEROV, L.K.; MEL'NIKOV, G.V., kandidat tekhnicheskikh nauk, dotsent,
redaktor; GRIBANOV, V.I., kandidat tekhnicheskikh nauk, redaktor;
FETISOV, F.I., inzhener, redaktor; SOKOLOVA, L.V., tekhnicheskii
redaktor.

[Piston type gas engines] Gazovye dvigateli porshnevogo tipa.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1955. 211 p.
(Gas and oil engines)

KOLLEROV, L.K., kandidat tekhnicheskikh nauk.

Foreign diesel building in 1955. Energomashinostroenie no.3:24-29
D '55.

(MLRA 9:5)

(Diesel engines)

KOLLEROV, L.K., kandidat tekhnicheskikh nauk.

Foreign diesel construction in 1955 (continuation). Energomashino-
stroenie no.1:26-30 Ja '56. (MLRA 9:5)
(Diesel engines)

KOLLEROV, L. K.

ANDREYEVSKIY, N.A.; BARANOV, S.M.; VANSHEYDT, V.A., professor, doktor
tekhnicheskikh nauk; VELIKSON, D.M.; GENDLER, L.V.; IVANCHENKO, M.N.;
ISTOMIN, P.A.; KATS, A.M. [deceased]; KOLLEROV, L.K.; LEVIN, M.I.;
NIKITIN, M.D.; ROZHDESTVENSKIY, V.V.; GOFMAN, Ye.I., redaktor izda-
tel'stva; POL'SKAYA, R.G., tekhnicheskij redaktor

[Diesel engines; a handbook for designers] Dizeli; spravochnoe posobie
konstruktora. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-
ry, 1957. 442 p. (MLR 10:10)

(Diesel engines)

AUTHOR: Kollerov, L.K., Candidate of Technical Sciences. 352
TITLE: Low noise MAN (German) diesel engine, type M. (Dizel MAN
s maloy stepenyu shumnosti.)
PERIODICAL: "Energomashinostroenie", (Power Machinery Construction),
1957, No. 3, pp. 30 - 31, (U.S.S.R.)
ABSTRACT: This article is based exclusively on papers published
in America.
3 illustrations. 3 American references.

KOLLEROV, L.K.

114-8-15/16

AUTHOR: Kollerov, L.K., Candidate of Technical Sciences.

TITLE: The spectrographic analysis of lubricating oil as a maintenance test procedure and as a means to lengthen the service life of diesel installations [in the USA]

PERIODICAL: "Energomashinostroyeniye" (Power Machinery Construction), 1957, Vol.3, No.8, p.38 (U.S.S.R.)

ABSTRACT: After describing briefly the safety and warning devices now fitted to diesel engines the article describes the use of spectrographic analysis on diesel engine oils for maintenance testing purposes in the USA. The amounts of six elements in the samples are estimated and the interpretation of results is briefly discussed. Examples of the application of this procedure in American railroad practice are described briefly. There are 2 Slavic references.

AVAILABLE: Library of Congress
Card 1/1

KOLLEROV, L. K.

114-11-10/10

AUTHOR: Kollerov, L.K., Candidate of Technical Sciences.

TITLE: Forty Years of Soviet Diesel Manufacture. (Sorok let otechestvennogo dizelestroeniya)

PERIODICAL: Energomashinostroyeniye, 1957, Vol.3, No.11, pp.45-48 (USSR)

ABSTRACT: Although pre-revolutionary Russia was technically backward, the production of diesel engines was relatively well-developed. Production began to increase significantly from the beginning of the first Five Year Plan. Despite the damage done by the war, the output of diesel engines is now much larger than it used to be. The article gives a good deal of information about the percentage increases of production in different factories in different years without giving numerical data.

About 50 main types of diesel engines, excluding automotive and tractor types, are now produced in the USSR. The number of minor variants is about 200. Outputs range from 10 to 3 000 h.p. Most of the engines with outputs up to 100 h.p. have been developed since the war. A typical compressorless four-stroke two-cylinder diesel engine is illustrated in Fig.1 and a V-type 12-cylinder diesel of 300 h.p. and 1 500 r.p.m. is illustrated in Fig.2. Engines of this type are produced as Card 1/5 diesel or as gas engines. In respect of weight, size and

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723830005-3"

Forty Years of Soviet Diesel Manufacture. reliability, they are superior to engines of foreign manufacture. The production of engine type 436/45, with an output of 100 h.p. per cylinder for operation on liquid fuel has recently been developed. For powers of from 300 to 800 h.p., the industry produces engines 6 and 84 23/30 of 450 and 600 h.p. and two-stroke engines 430/50 (illustrated in Fig.3) of 400, 600 and 800 h.p. at 300 r.p.m., which can be made reversing if necessary. Engines of from 800 to 1 500 h.p. for ships and locomotives are the super-charged type 450 with an output of 1000 h.p. at 740 r.p.m. and engines 9A and 9AM. In the range of 1 500 - 2 000 h.p., the following types of engines are constructed: 2A100, which is a two-stroke engine of 2 000 h.p. with vertically-opposed pistons; 8AP 43/61 which is a two-stroke diesel of 2 000 h.p. running at 250 r.p.m., used with a reduction gear for ship propulsion; type APA1 with a total output of 4 000 h.p. and engine 37A with an output of 2 000 h.p. at 5 000 r.p.m. An outstanding engine that is now being built is type M50, which is a V arrangement, four-stroke super-charged engine. Engines of this class for outputs of 900 and 1 000 h.p. or of 600-700 h.p. (see Fig.4) are the best engines of their class in the world. These engines are also being arranged to run on gas.

Card 2/5 In view of the extensive development of diesel-electric loco-

Forty Years of Soviet Diesel Manufacture.

114-11-10/10

motives, a number of engines for use in such locomotives are described. The first Soviet diesel locomotive was built in 1922 and by 1927 locomotives with electrical and mechanical transmission were being built. Later, the Kolomna Works designed two locomotives which were intended for series production. These employed four-stroke diesel engines, 426 DK-6 which were converted to compressorless fuel atomisation. This engine had a power of 1 200 h.p. at 450 r.p.m. By 1965, diesel traction will be used for 85% of all loads and by 1960 the output of diesel locomotives will be greatly increased. The main type of locomotive will be equipped with two two-stroke diesel engines type 2A-100, with a total output of 4 000 h.p. At the present time, the Kharkov Works is developing two- and three-section diesel locomotives with a total power of 6 000 h.p., by raising the power of engine 2A100 to 3 000 h.p. The Kolomna Works is developing main-line locomotives of 6 000 h.p. in two sections.

The Voroshilovgrad Works (Voroshilovgradskiy Zavod) is carrying out experimental work on a locomotive containing a free-piston gas generator and a gas turbine with an output of 3 000 h.p. The Muromsk (Muromskiy Zavod) and Voroshilovgrad Works are organising the production of shunting locomotives with diesel Card 3/5 engines of up to 800 h.p.

Forty Years of Soviet Diesel Manufacture.

114-11-10/10

Since 1950, the diesel engine works have commenced to introduce systems of automatic temperature control. At the present time, the works are developing fully automatic diesel generator installations for emergency use. The works will shortly produce systems for the remote control of diesel engines. Factory test beds are equipped with a range of electronic measuring equipment, strain gauges, radio-active techniques, and so on. Special methods have been developed to measure the piston temperature whilst an engine is working and also to measure stresses in working parts, including parts working at quite high temperatures by means of strain gauges. The use of radio-active isotopes to measure wear is very promising.

Scientific research organisations concerned with the study of diesel engines have made great progress. The Central Scientific Research Diesel Institute (TsKTI) was set up in 1924 and solved a number of technical problems. Very valuable work has been done by the Institute on the subjects of mixture formation, fuel delivery, automatic equipment, control, measuring procedure and so on. Other institutions that have made important contributions are: NAMI, NATI, TsIAM and NILD. The article is terminated by a list of ten outstanding problems including the development of Card 4/5 large, slow-speed engines for ship propulsion, increased use of

KOLLEROV, L. K.

KOLLEROV, L.K., kand. tekhn. nauk.

System for remote control of diesels. Energomashinostroenie 4 no.1:
42 Ja '58. (MIRA 11:1)

(Remote control) (Diesel engines)

KOLLEROV, L.K., kand. tekhn. nauk; LEVIN, M.I., kand. tekhn. nauk

Automation of diesel power plants. *Energomashinostroenie* 4
no. 6:22-24, 35 Je '58. (MIRA 11:8)
(Diesel electric power plants)
(Automatic control)

KOLLEROV, L.K., kand. tekhn. nauk

Torch ignition of the mixture in gas engines. Energomashinostroenie
4 no.10:47-48 0 '58. (MIRA 11:11)
(Gas and oil engines--Ignition)

KOLLEROV, I.K., kand. tekhn. nauk

Large internal combustion engines in foreign countries. Energomashi-
nostroenie 5 no. 3:44-48 Kr '59. (MIRA 12:3)
(Gas and oil engines)

S/114/60/000/008/009/010
E194/E255

AUTHOR: Kollerov, L. K., Candidate of Technical Sciences

TITLE: Some New Works of TsNIDI

PERIODICAL: Energomashinostroyeniye, 1960, No. 8, p. 45

TEXT: Brief details are given about the following articles.
M. D. Nikitin; The influence of piston-ring design on the operation of engines Types 410,5/13 (Ch10.5/13) and 48,5/11 (Ch8.5/11).
V. V. Saltykovskiy; An investigation of the working process and mixture formation in a two-stroke gas engine. V. P. Baykov; An investigation of the influence of various components of the flow path of turbo-compressors on their characteristics, noise, and maximum efficiency. Ye. A. Skobtsov; Reducing the noise and vibration of diesel engines and diesel installations. V. S. Sokolov; An investigation of the working process of an engine with a piston head chamber using a single cylinder section Type 1414,5/20,5 (1Ch14.5/20.5) with supercharging. A. F. Yeremeyev; An investigation of fuel pumps with self-regulating properties. F. A. Frolov; An investigation of heat transfer in a cast-iron piston with oil cooling of a slow-speed marine-engine Type 8AP43/61 (8DR43/61).
Card 1/1

VASIN, L.V., inzh.; AKHUN, B.N., inzh.; IVANCHENKO, N.N., kand. tekhn. nauk; KOLLEROV, L.K., kand. tekhn.nauk; NIKITINA, N.V., inzh.; SOKOLOV, S.S., kand. tekhn. nauk; FODIN, A.A., red.; YURKEVICH, M.P., red. izd-va; PETERSON, M.M., tekhn. red.; SPERANSKAYA, O.V., tekhn. red.

[Diesel and gas engines; catalog-handbook] Dizeli i gazovye dvigateli; katalog-spravochnik. Pod red. A.A.Fadina. Moskva, Mashgiz, 1961. 279 p. (MIRA 14:12)

1. Leningrad. Tsentral'nyy nauchno-issledovatel'skiy dizel'nyy institut.

(Gas and oil engines)

KOLLEROV, L.K., kand.tekhn.nauk

Recent research carried out by the Central Diesel Research
Institute. Energomashinostroenie 7 no.5:48 Ky '61.
(MIRA 14:8)

(Gas and oil engines)

KOLLEROV, L.K., kand.tekhn.nauk

Industry-wide conference on diesel construction. Energomashino-
stroenie 7 no.8:47 Ag '61. (MIRA 14:10)
(Diesel engines--Design and construction)

AKHUN, B.N.; VASIN, L.V.; GITIS, V.Yu.; KOLLEROV, L.K., kand.
tekhn. nauk; ABRAMOV, A.M., red.; KOVAL'SKAYA, I.F.,
tekhn. red.; KOGAN, F.L., tekhn. red.

[Diesel-engine manufacture abroad] Dizelestroyeniye za rubezhom;
obzor. Moskva, 1962. 132 p. (MIRA 16:7)
(Diesel engines)

KOLLEROV, L.K., kand.tekhn.nauk

Results of a conference of several branches of industry on diesel
construction and related tasks. Energomashinoostroenie 9
no.8:36-37 Ag '63. (MIRA 16:8)

(Diesel engines)

BALAKIN, V.I., red.; IVANCHENKO, N.N., red.; KOLLEROV, L.K.,
red.; LEVIN, M.I., red.; NIKITIN, M.D., red.

[Internal combustion engines; collection of papers dedicated
to the memory of Professor Liudvig Karlovich Martens, Doctor
of Technology] Dvigateli vnutrennego sgoraniia; sbornik rabot
posviashchennyi pamiati doktora tekhnicheskikh nauk, profes-
sora Liudviga Karlovicha Martensa. Moskva, Mashinostroenie,
1965. 454 p. (MIRA 18:4)

BALAKIN, V.I., kand. tekhn. nauk; KOLLEROV, L.K., kand. tekhn. nauk

Operating life and reliability of diesel engines should be
increased. Energomashinostroenie 10 no.12:8-10 D '64.
(MIRA 18:2)

KOLLEKOV, L.K.

Fortieth Anniversary of the Central Research Institute of
Diesel Engines. Energomashinoostroenie 11 no.4:43-44 Ap '65.

(MIRA 18:6)

1. Zamestitel' direktora Tsentral'nogo nauchno-issledovatel'skogo
dizel'nogo instituta po nauchnoy rabote.

L 38724-66 ENT(m)/T DJ/WE
ACC NR: AP6014150 (A,N)

SOURCE CODE: UR/0114/65/000/012/0001/0003

AUTHOR: Balakin, V. I. (Candidate of technical sciences); Kollerov, L. K. (Candidate of technical science)

ORG: None

TITLE: Improving the quality of diesels

SOURCE: Energomashinostroyeniye, no. 12, 1965, 1-3

TOPIC TAGS: diesel engine, diesel fuel, quality control, automation, automation equipment, ~~cavitation~~, component life expectancy, fuel consumption

ABSTRACT: The authors discuss the necessity for systematic improvement in production quality of diesel units. Diesels are the most important source of power in the Soviet Union since they produce more than 50% of the entire power output. The problems of increasing the quality and production of diesels are discussed: increasing the service life of diesels by a factor of 2-3 before overhauling and major repairs; improving the quality of engine assembly apparatus, electric units and means of automation; organizing the production of steel and other materials with higher quality indices; improving parts production; increasing the number of machine tools in use and constructing new specialized machine tools and other technical equipment. The problems associated with improving the quality of diesels were discussed at the Conference on

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UDC: 621.436(047.1)

L 38724-66

ACC NR: AP6014150

9

Diesel Building held in Leningrad May, 1965. Diesel plant workers, scientific research institutes, departments of internal combustion engines of universities and government committees, ministries and others were present. The Conference listened to the report of the Central Scientific Research Diesel Institute on the results of the plan for 1964 and measures for its fulfillment in 1965, and the plan for 1966 including the technical level of domestic diesels. Chief engineers of diesel building plants, L. V. Markin, V. M. Nikolayev, N. I. Suvorov, Ye. A. Koshkin and other, spoke on the subject. It was pointed out that various diesel building plants and scientific research institutes are doing work on producing up-to-date diesels with improved gas-turbine supercharging and automatic control. Such topics as reduction of fuel consumption and oil were also considered. 7000 diesels with improved motor capacity were produced by diesel plants in 1964 alone. This shows an increase of 27% compared to 1963. Steps were taken to establish a special branch for specialization, cooperation, technical economic study, standardization and other functions. Patentability must be taken into consideration in the production of new diesels. This necessity has been brought about by increased international trade. All requirements for export production should also fall under this topic.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2

KOLLEROVA, Ye.V.

Use of air filters in the biochemical final purification of
wastes from electric desalter plants. Trudy VODGEO no. 2:
58-63 '63 (MIRA 19:1)

KOLLEY, Laszlo

Transportation and working in of concrete. Melyepitestud szemle 12
no.1:1-9 Ja '62.

KOLLEY, Laszlo; VASVARY, Antal

Central concrete factories. Magyar ipar 11 no.11:501-508 '62.

<div style="float: left; width: 30%;"> ROLL- A Y A <div style="font-size: 2em; margin-top: 10px;">C'A</div> </div> <div style="float: right; width: 70%; text-align: center;"> PROCESSING AND AGGREGATE INDEX <p>The performance of apparatus coated with marmetallic, chemically resistant materials. A. Ya. Kolli and N. F. Popova. <i>J. Chem. Ind. (U. S. S. R.)</i> 18, No. 15-16, 52-4 (1941); <i>Chem. Abstr.</i> 1943, I, 8325.—The stability of linings of acid-fast cements, with and without admix. coatings of Bituminol, rubber, etc., toward the action of solut. of salts and acids is discussed. M. G. Moore</p> </div>									
ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION									
<div style="position: relative;"> <div style="position: absolute; left: -40px; top: 50%; transform: translateY(-50%); white-space: nowrap;"> Common Elements Common Variables Index </div> <div style="position: absolute; right: -40px; top: 50%; transform: translateY(-50%); white-space: nowrap;"> Common Elements Common Variables Index </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> SECTION DIVISION 100000 00 </div> <div> SECTION MAP ONLY USE </div> <div> SECTION INDEX </div> </div>									

SITANOV, I.Ya.; KOLLI, A.Ya., inzhener, redaktor; TIKHONOV, A.Ya.,
tekhnicheskiiy redaktor

[Spark test for steel varieties] Opredelenie marki stali po iskre.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit.
lit-ry, 1953. 13 p. (MLRA 10:1)
(Steel--Testing) (Electric spark)

POKHOROVSKIY, A.D.; KOGAN, Z.Ye, inzhener, retsenzent; KOLLI, A.Ya., inzhener,
redaktor; POPOVA, S.M., tekhnicheskiiy redaktor

[Reading devices in coordinate boring machine tools; construction,
adjusting, and repair] Otschetnye mekhanizmy koordinatno-rastochnykh
stankov; tekhnologiya, nastroyka i remont. Moskva, Gos.nauchno-tekhn.
izd-vo mashinostroitel'noi lit-ry, 1955. 127p. (MIRA 9:3)
(Machine tools)

KOLLI, A.Ya., inzhener, redaktor; TIKHONOV, A.Ya., tekhnicheskii redaktor

[Highspeed cutting with large feeds] Skorostnoe rezanie s bol'shimi
podachami. Moskva, Gos.nauchno-tekhn.izd-vo mashino-stroit. lit-ry,
1955. 218 p. (MLRA 9:2)

1. Dom inzhenera i tekhnika imeni F.E.Dzerzhinskogo, Moscow.
(Metal cutting)

Dehydration and thermal decomposition of some heteropoly compounds. V. I. Spitsyn and I. D. Koll (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 63, 222-223 (1952).—Changes of wt. on heating were studied with 0.1-g. samples of the following compds. (compn. in oxides = nearest coordination formula): (I) $2.54 \text{ Li}_2\text{O} \cdot \text{SiO}_2 \cdot 11.70 \text{ WO}_3 \cdot 16.24 \text{ H}_2\text{O} = \text{Li}_2\text{H}_2[\text{Si}(\text{WO}_3)_6] \cdot 14.5 \text{ H}_2\text{O}$; (II) $2.09 \text{ K}_2\text{O} \cdot \text{SiO}_2 \cdot 12.15 \text{ WO}_3 \cdot 10.03 \text{ H}_2\text{O} = \text{K}_2\text{H}_2[\text{Si}(\text{WO}_3)_6] \cdot 11 \text{ H}_2\text{O}$; (III) $2.18 \text{ CaO} \cdot \text{SiO}_2 \cdot 12.27 \text{ WO}_3 \cdot 24.56 \text{ H}_2\text{O} = \text{Ca}_2\text{H}_2[\text{Si}(\text{WO}_3)_6] \cdot 22.5 \text{ H}_2\text{O}$; (IV) $2.78 \text{ K}_2\text{O} \cdot \text{P}_2\text{O}_5 \cdot 23.76 \text{ WO}_3 \cdot 17.78 \text{ H}_2\text{O} = \text{K}_2\text{H}_2[\text{P}(\text{WO}_3)_6] \cdot 7 \text{ H}_2\text{O}$; (V) $3.28 \text{ K}_2\text{O} \cdot \text{P}_2\text{O}_5 \cdot 24.17 \text{ MoO}_3 \cdot 13.06 \text{ H}_2\text{O} = \text{K}_2\text{H}_2[\text{P}(\text{MoO}_3)_6] \cdot 4.5 \text{ H}_2\text{O}$. In an air stream flowing at 4 l./hr., satd. with H_2O vapor at 20° (17.5 mm.), at 25° , I absorbed moisture and the H_2O content rose to 28 mols. Decompn. began at 35° , and at 50° the H_2O content was 16 mols. The H_2O content continued to fall with rising temp. up to 100° . On further heating, the H_2O content falls stepwise, and at least 3 hydrates appear to exist, with 4, 1.5, and 0.5 H_2O mols. The last 0.5 mols. are kept tenaciously on heating from 350 to 440° . The dehydration curves of II, IV, and V, are similar to one another: very little H_2O is lost up to 100° ; there appear to exist a decahydrate and a pentahydrate of II, and a dodecahydrate and a hydrate contg. 8.5 H_2O of IV. Above 100° , dehydration is markedly

slower. Further dehydration of II proceeds in 3 stages, and of IV and V in 2 stages. II keeps 0.5 H_2O on heating at 330 – 460° ; IV and V keep 1 H_2O at 340 – 480° and 181 – 400° , resp. III gives up H_2O up to 230° , when the amt. of H_2O left goes down to 3 mols.; there is no further dehydration up to 350° . Above 350° , more H_2O is lost in a continuous way; the monohydrate is stable in the temp. range 440 – 500° , and the hemihydrate at 480 – 500° . In IV and V, H_2O is bound more strongly than in I, II, and III. The binding of H_2O is weakened by replacement of K by Li, or of K by Ca. V is dehydrated more easily than IV. In 12 hrs. treatment with H_2O (at room temp.) of the salts dehydrated at 300° , I was found to give a small amt. of insol. residue; with II and III this occurred only on heating at 300° , and with (VI) $2.18 \text{ Na}_2\text{O} \cdot \text{P}_2\text{O}_5 \cdot 23.94 \text{ WO}_3 \cdot 34.63 \text{ H}_2\text{O} = \text{Na}_2\text{H}_2[\text{P}(\text{WO}_3)_6] \cdot 15 \text{ H}_2\text{O}$, only above 300° . Phosphotungstates are more heat-resistant than silicotungstates. After heating to 500° , the aq. ext. of the dehydrated tungstate shows a marked deficit of WO_3 relative to the amt. of alkali. With silicotungstates, sol. alkali silicate is found in the ext., and with VI, sol. phosphate. These findings compel a critical attitude towards existing views on the constitution of heteropoly compds. It is probable that, partly at least, H_2O is bound within the coordination core. N. Thon

SPITSYN, V.I.; KOLLI, I.D.

Study of the dehydration and thermal decomposition of potassium
silicotungstate. Zhur.neorg.khim. 1 no.3:445-459 Mr. '56.
(MLRA 9:10)

1. Laboratoriya neorganicheskoy khimii Moskovskogo gosudarstvennogo
universiteta imeni M.V. Lomonosova.
(Potassium silicotungstates)

KOLLI, I.D.

USSR/Inorganic Chemistry - Complex Compounds

C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4110

Author : Kolli, I.D., Pirogova, G.N., Spitsyn Vikt. I.

Title : Dehydration of Sodium Paratungstate

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 3, 460-469

Abstract : Study of the dehydration of sodium paratungstate (I) by several procedures: by isobaric dehydration on a quartz balance; isothermal dehydration with the use of quartz balance and of Van Bemmelen method; dehydration on a continuous operation balance; by thermal dehydration in an electric crucible furnace. There has been ascertained the existence of hydrates of I containing per 1 mole of $5\text{Na}_2\text{O} \cdot 12\text{WO}_3$, 28, 19, 10, 9, 5, 4, 3 and 1 H_2O . Determined

were the temperature conditions of the existence of the hydrates and the pressure of their dissociation. All the hydrates are water soluble; only on a complete dehydration

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USSR/Inorganic Chemistry - Complex Compounds

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Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4110

C.

does I become insoluble in water. Over concentrated H_2SO_4 I becomes partially dehydrated with the formation of a 10-hydrate. On isobaric dehydration on a quartz balance it was found that most strongly are retained 1.7 mole of water, which calculated on the basis of the coordination formula $\text{Na}_5\text{H}_5 [\text{H}_2(\text{WO}_4)_6]$ amounts

to 0.8 mole. 25 mole of H_2O are removed reversibly. The 3-hydrate does not add the water lost on dehydration, which on computation on the basis of the coordination formula corresponds to the loss of one half of alcohol hydrogen atoms of the external sphere of the complex. Complete dehydration takes place at 300° .

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KOLLI, I.D.

USSR/Inorganic Chemistry - Complex Compounds

C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4109

Author : ~~Kolli, I.D.~~ Pirogova, G.N., Spitsyn Vikt. I

Title : Dehydration of Sodium Metatungstate

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 3, 470-477

Abstract : Dehydration of sodium metatungstate (I) was investigated by several procedures: on a quartz balance; by Van Bemmelen's method in desiccators over sulfuric acid of different concentration; on continuous operation balance by heating in the air at different temperatures. Ascertained was the existence of hydrates containing per 1 mole of $\text{Na}_2\text{O} \cdot 4\text{WO}_3$, 10, 4.5, 2.5, 2, 1.5 and 0.2-0.3 H_2O . Determined were the temperature conditions of the existence of hydrates and water vapor tensions during their dissociation. All the hydrates are soluble in water; after a complete dehydration I is no longer soluble in water.

Card 1/2

- 24 -

Chem The dehydration and the thermal decomposition of
 gadolinium allcotungstate. V. I. Spitsyn and I. D. Kudi
 (M. V. Lomonosov State Univ., Moscow) ~~Chem. Abstr.~~
 Khim. 1, 2403-8 (1970).—The isobaric dehydration of $Gd_2O_3 \cdot 14.5H_2O$ (I) was studied for the temp. range
 20–800°. Successive hydrates containing 14, 13, 12, and 1
 mole H_2O and the possible existence of an intermediate 13
 mole H_2O was established. Heating I to 120°
 causes no significant decomposition. The final dehydration of I,
 which occurs at 420°, is accompanied by decomposition. The main

"APPROVED FOR RELEASE: 09/18/2001

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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723830005-3"

76-32-5-30/47

AUTHORS: Spitsyn, Vikt. I., Spiridonov, F. M., Kolli, I. D.

TITLE: The Application of the Self-Diffusion Method for Investigating the Formation Mechanism of Heteropoly Compounds (Primeneniye metoda samodiffuzii k izucheniyu mekhanizma obrazovaniya geteropolisoyedineniy)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 5, pp.1143-1148 (USSR)

ABSTRACT: According to Jander (Ref 1) an anion of the aquopoly compound forms on the acidification of solutions containing salts of acids forming heteropoly compounds; Spitsyn and Koneva (Refs 2, 3) carried out corresponding investigations of sodium phosphate-tungstenate mixtures from which could be concluded that an interaction between the ions takes place already in the alkaline medium. In order to check the latter the authors investigated in the present paper sodium phosphate and normal sodium tungstenate by means of the method of self-diffusion using isotopes P^{32} and W^{185} . The technique of determination is similar to that elaborated by Anderson and Saddington

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76-32-5-30/47

The Application of the Self-Diffusion Method for Investigating the Formation Mechanism of Heteropoly Compounds

(Ref 4): the authors used an arrangement the diagram of which is given. The diffusion coefficient was calculated according to an equation and the results are mentioned in a table. It can be seen that at a pH of about 9 the diffusion coefficient of the phosphate ion exceeds that of the tungstenate ion almost three times, while at a pH = 6 - 8 an abrupt change of the diffusibility of the ions takes place. Already in the weakly alkaline medium the addition of tungstenate changes the magnitude of the diffusion coefficient of the phosphate ions, so that in mixtures the self-diffusion of phosphate ions approaches the magnitudes characteristic for tungstenate ions, and at pH = 7.8 (as shown by isotope marking) practically the same values are obtained for phosphorus and tungsten. A method of operation was used which in principle is analogous to that by Spitsyn and Koneva (Ref 3). At a pH below 8.4 a process of complex formation takes place which does not prove the assumption by Jander. From the diagram of the ionic weights can be seen that an area with a mass close to that of W_4^{2-} is present, as well as one containing about 12 corresponding ion groups. It is assumed

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76-32-5-30/47
The Application of the Self-Diffusion Method for Investigating the Formation
Mechanism of Heteropoly Compounds

that the molecular ratio of phosphate-tungstenate ions of the used mixture has an effect on the composition of the complex, namely, the more WO_4^{2-} ions are present the more acidous the medium must be in order to reach the same diffusion coefficient. There are 4 figures, 4 tables, and 5 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 18, 1957

1. Sodium phosphate--Diffusion 2. Sodium tungstate--
Diffusion 3. Radioisotopes--Applications

Card 3/3

YUKHNEVICH, G.V.; BABUSHKIN, A.A.; KOLLI, I.D.

Influence of water on the structure of potassium silico-
tungstate. Zhur.neorg.khim. 5 no.5:1176-1177 Ky '60.
(MIRA 13:7)

1. Institut fizicheskoy khimii Akademii nauk SSSR. Kafedra
neorganicheskoy khimii khimicheskogo fakul'teta Moskovskogo
gosudarstvennogo universiteta.
(Potassium silicotungstate)

5.3630
5.4500(B)
AUTHORS:

Spitsyn, Vikt. I., Academician,
Afanasyeva, N. A., Pikayev, A. K.,
Koll, I. D., Glazunov, P. Ya.

800C4
S/020/60/131/05/034/069
B011/B117

TITLE: Radiation Method of Synthesis for Some Derivatives of Phosphonitryl Chloride

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 5, pp 1106-1108 (USSR)

TEXT: The authors investigated the possibility to synthesize the butyl phosphonitryl ether by radiation of a mixture consisting of tetrameric phosphonitryl chloride and n-butyl alcohol with a high-energy electron flux at room temperature. An electron accelerator giving up to 1.0-1.2 Mev (Ref 14) was used as the radiation source. The solutions were irradiated in glass cells equipped with a thin glass membrane. n-Butyl alcohol was cooled and stirred with an Ostwal'd viscosimeter and by checking the chlorine content in the resulting compounds. It was found that, for both chlorine atoms in tetrameric phosphonitryl chloride, butoxy radicals are substituted. Then, the authors described a typical experiment in order to obtain butyl phosphonitryl ether. With radiation using 0.6 Mev electrons and a current of $3 \mu\text{A}$ in the solution for six hours and with an integral dose of $1.5 \cdot 10^{22}$ ev/ml at a maximum temperature of 30° , a

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Radiation Method of Synthesis for Some Derivatives
of Phosphonitryl Chloride

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B011/B117

viscous brown liquid with a disagreeable smell remained, when n-butanol had been distilled off. Its analytical data corresponded to phosphonitryl ether of n-butyl alcohol. The yield was nearly twice as much as compared to the yields, obtained with methods according to reference 9, i.e. 45%. Table 1 shows the results of viscosity measurements of the irradiated 5% solutions of the tetramer in n-butyl alcohol as well as of chlorine determinations in the products obtained. Figure 1 shows the characteristic changes of viscosity of a 5% solution of the tetramer in butanol as a function of the integral radiation dose. The authors come to the conclusion that the character of the radiolytic reaction mentioned is complicated. The rapid decrease of the chlorine content and the reduction of viscosity at the very beginning of radiation are probably due to a substitutional chain reaction. The substance dissolved is probably exposed chiefly to the action of hydrogen atoms forming when n-butyl alcohol is being radiolyzed. By reaction with atomic hydrogen, the ring of the tetramer is split. Mono- and dimeric radicals are formed, and chlorine atoms are split off as HCl (see schemes (1) - (5)). Hydrogen atoms resulting from the reactions (4) and (5) react again with the tetramer, and so on. If radiation is further prolonged, an inverse reaction between HCl and the butoxy derivatives due to a high HCl concentration is possible, besides ring formation (Table 1). For this reason, a maximum

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Radiation Method of Synthesis for Some Derivatives
of Phosphonitryl Chloride

S/020/60/131/05/034/069
B011/B117

appears on the curve (Fig 1); the second minimum is apparently due to the suppression of the inverse reaction. The method mentioned in the title has several advantages as compared to current-type procedures. When a 2% solution of phosphonitryl chloride trimer in absolute dioxane was irradiated, $(\text{PNCIC}_4\text{H}_8\text{O}_2)_x$ - a substitution product of one dioxane molecule for one chlorine atom of phosphonitryl chloride - was obtained (Table 2). This compound is highly resistant to hydrolysis. Its structure is being further studied. There are 1 figure, 2 tables, and 14 references, 3 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR). Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 16, 1960

Card 3/3

SPITSYN, V.I., akad., red.; KOLLI, I.D., kand. khim. nauk, red.; ZHELIGOV-
SKAYA, N., kand. khim. nauk [translator]; MEN'KOVA, N., [translator];
PATSUKOVA, N., kand. khim. nauk [translator]; PASHINKIN, A., kand.
khim. nauk [translator]; PIKAYEV, A., kand. khim. nauk [translator];
SEMENENKO, K., kand. khim. nauk [translator]; TUROVA, N. [translator];
MANUYLOVA, G.M., red.; RYBKINA, V.P., tekhn. red.

[Inorganic polymers] Neorganicheskie polimery. Moskva, Izd-vo inostr.
lit-ry, 1961. 470 p. Translations from foreign journals.

(MIRA 14:13)

(Polymers)

S/844/62/000/000/086/129
D423/D307

AUTHORS: Spitsyn, V. I., Afanas'yeva, N. A., Kolli, I. D., Pika-
yev, A. K. and Glazunov, P. Ya.

TITLE: Radiation polymerization of phosphonitrile chloride

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khi-
mii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962,
507-510

TEXT: Investigations were carried out on samples of phosphonitrile
chloride deposited on aluminum subjected to various doses of 1 -
1.2 Mev electrons from an electron accelerator, at a temperature
of about 130°C. Almost complete polymerization occurred with a
dose of 1.7×10^{24} ev/g, in the presence of oxygen. Since partial
volatilization of the $(\text{PNCl}_2)_3$ occurred, owing to heating by ab-
sorption of energy, similar experiments were carried out with
 $(\text{PNCl}_2)_4$ in the absence of oxygen, but only at very high dosages
was any significant polymerization observed. Experiments were car-

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Radiation polymerization of ...

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D423/D307

ried out in addition on the action of radiation on the reaction of n-butyl alcohol with $(\text{PNCl}_2)_4$, which does not take place under normal conditions. A typical experiment was carried out using 80 ml of a 5% solution of $(\text{PNCl}_2)_4$ in absolute n-butanol and irradiating in a glass cell for 6 hours with 0.6 Mev electrons and a dose of 1.5×10^{22} ev/ml. The temperature did not exceed 30°C . After analysis the product was found to correspond to phosphonitrile ether n-butanol. Atomic hydrogen liberated during the process was assumed to be responsible for the formation of monomer and dimer radicals and also HCl. Data obtained indicated that the chlorine content of the solution was reduced with increase of dosage. Further work was undertaken using a mixture of phosphonitrile chloride and calcium fluoride in tetrachlorethane. Analysis confirmed that mixed phosphonitrile halides were obtained, corresponding to the formula $\text{P}_4\text{N}_4\text{FCl}_7$. There are 2 tables.

ASSOCIATION: Institut fizicheskoy khimii AN SSSR, Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, khi-

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Radiation polymerization of ...

S/844/62/000/000/086/129
D423/D307

micheskoy fakul'tet (Institute of Physical Chemistry, AS
USSR; Moscow State University im. M. V. Lomonosov, Fa-
culty of Chemistry)

Card 3/3

YEVDOKIMOV, V.B.; ZELENTSOV, V.V.; ~~KOLLI, I.D.~~; TAM VEN'-SYA; SPITSYN,
Vikt.I., akademik

Magnetic susceptibility and stereochemistry of complex compounds
of Mo (III) with urea, thiourea, and their derivatives. Dokl.AN
SSSR 145 no.6:1282-1284 Ag '62. (MIRA 15:8)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Molybdenum compounds—Magnetic properties) (Urea)

SPITSYN, Vikt.I.; KOLLI, I.D.; TAM VEN'-SYA

Complex compounds of tri- and pentavalent molybdenum with thiourea.
Zhur.neorg.khim. 9 no.1:99-105 Ja '64. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, kafedra
neorganicheskoy khimii.

GRIGOR'YEV, A.I.; TAM VEN'-SYA; KOLLI, I.D.; SPITSIN, Vikt. I.

Infrared spectra of complex compounds of tri- and pentavalent
molybdenum with urea and thiourea. Zhur. neorg. khim. 9 no.11:
2585-2589 N '64 (MIRA 18:1)

AP5007568

2

depending alkyl amine. The products were purified by fractional distillation in a vacuum, without decomposition. Boiling and melting points of the compounds were determined. The melting point of $(BF_3NH_2)_2$ was found to be $-115^\circ C$, which disagreed with data in the literature. On heating, BF_3NH_2 decomposed into ammonium fluoroborate and boron trifluoride. However, disproportionation of alkyl substituted derivatives of BF_3NH_2 into alkyl substituted boron trifluoride and alkyl substituted ammonium fluoroborate was observed. This fact indirectly confirms the existence of BF_3NH_2 disproportionation in three steps, involving the formation of BF_2NH_2 and $(BFNH_2)_2$ as intermediate products. BF_2NH_2 and $(BFNH_2)_2$ were not isolated, but their disproportionation into N,N -diethyl- B,B' -trifluoroethaneamine and N,N -diethyl- B,B' -difluoroethaneamine was observed. In the presence of certain metals (Al, Mg, Zn, etc.) with alkyl substituted BF_3NH_2 , N,N -diethyl- B,B' -difluoroethaneamine, $BF_2N(C_2H_5)_2$, in various yields. The products were identified as ammonium tetrafluoroborate, or by its salt, depending on conditions. In the presence of sodium, disproportionation of BF_3NH_2 was observed, resulting in the B-N bond. Orig. art. has tables and formulas. [JK]

Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow University); Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences SSSR)

Physical Chemistry, Academy of Sciences USSR)

APR 007568

ap. 8

ENCL: 00

005 TYPE: GC

005

OTHER: 005

ATD PRESS: 3204

SPITSYN, Vikt.I., akademik; KOLLI, I.D.; RODIONOV, R.A.;
SEVAST'YANOVA, T.G.

Conductance of aqueous and nonaqueous solutions of trifluoro-
borazane. Dokl. AN SSSR 165 no.2:341-343 N '65.

(MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet i Institut fizicheskoy
khimii AN SSSR.

L 42939-66 EWT(m)/EWP(j)/T WW/JWD/RM

ACC NR: AP6013283 (A) SOURCE CODE: UR/0413/66/000/008/0079/0079

INVENTOR: Spitsyn, V. I. ; Kolli, I. D. ; Rodionov, R. A.

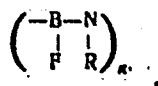
ORG: none

TITLE: Preparation of organoelemental polymers,¹ Class 39, No. 180799¹⁵

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 79

TOPIC TAGS: polymer, organoelemental polymer

ABSTRACT: This Author Certificate introduces a method of preparing an organoelemental polymer of the general formula



where R—hydrogen, alkyl C₁—C₁₀, aryl, cycloalkyl or heterocyclic radical, and n is the degree of polymerization.¹ By this method, BF₂NR₂ or (BFNR)₃ monomers are heated under vacuum at 150--290 C in the presence of polymerization initiators, such as

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UDC: 678.86.16.27

L 42939-66

ACC NR: AP601328

peroxides, boron trifluoride complexes, borazenes, and metal oxides or salts.
[Translation]

[LD]

SUB CODE: 11/ SUBM DATE: 01Feb65/

Card 2/2 MLP

KOLLI, N.^{G.}; MYAGKOV, M., redaktor; RAKOVA, I., tekhnicheskiy redaktor.

[Photographers' circle in the club] Fotokruzhok v klube. [Moskva]
Izd-vo VTsSPS Profizdat, 1954. 123 p. (MLA 7:8)
(Photography)

KOLLI, H.G.

[Photography in agriculture] Fotos"enka v sel'skom khoziaistve.
Moskva, "Iskusstvo," 1954. 80 p.
(MLA 7:11D)

KOLLI, Nikolay Grigor'yevich; TRELSHOV, A.N., redaktor; SHILINA, Ye.I.,
tekhnicheskiiy redaktor

[Photography in agriculture] Fotos'emka v sel'skom khoziaistve.
Moskva, Gos. izd-vo "Iskusstvo," 1954. 77 p. (MLRA 8:3)
(Photography, Agricultural)

KOLLI, N.Ya., prof.

Post-war housing construction in London. Opyt stroi. no.11:
3-25 '58. (MIRA 11:10)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury
SSSR.

(London--Apartment houses)

KOLLI, YA. N.

42266: KOLLI, YA. N. - Prilozheniye Krugovykh diagramm K issledovaniyu. rezonansnogo
Kentura. Trudy Mosk. energet. in-ta im. Molotova, VYP 3, 1948, s. 180-84.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

[illegible]

KOLLI, Ya-N.

1. The first step is to identify the problem or goal. This involves understanding the current situation, identifying the problem, and setting a clear goal.

Page 13 - 4/15

... Ivanov, K. M.; Kolli, Ya. N.; and Kharina, M. N.

11310 : Rotation of a cm-wave polarization surface with a ferrite disc

Periodical : Izv. AN SSSR. Ser. fiz. 18/3, 350-359, May-Jun 1954

Abstract : The rotations of a cm-wave polarization surface with Ni-Zn-ferrite were investigated experimentally. Basic equations were formulated for a simpler wave in an infinitely long medium. It was shown that the rotation of the polarization surface is possible to explain the results of the experiment. The rotation of the polarization surface with increasing frequency was investigated. It was also determined that the rotation of a polarization surface can find numerous applications in the microwave technique, e.g., for signal processing, for the realization of a modulator, for modulation of the amplitude of a wave, for the generation of a wave from waves reflected by an image. Four references : 2 USA and 2 French (1951-1953). Table; graphs; illustration; diagram; drawing.

pp. 350-359, May-Jun 1954.

(Additional Card)

Institution : The V. M. Molotov Electrical Engineering Institute, Moscow

Submitted : May 16, 1954

RUSSIA, Ya. N.

Measuring line resonance

No. 3 - 10/25

Author: Kozlov, Ya. N., and Polivanov, K. M.

Title: A ferrite disc in a coaxial line

Periodical : Izv. AN SSSR. Ser. fiz. 18/3, 382-399, May-Jun 1954

Abstract : It is shown that the measuring line method (for the analysis of magneto-dielectrics) can be expanded by adaption of a circular diagram (ferrite disc) and by changing the measurement at two positions of the short circuiting piston to measurement at three positions of the piston (method of three relative loads). In the absence of a constant magnetization the measuring line method can be applied for the determination of permeability of magneto-dielectrics and the expansion of the method can serve only for a primary evaluation of results obtained. In the presence of a lateral

UDC 621.372.3.01, 612-377, May-Jun 1954

Electrical Engineering

Abstract : constant magnetic field the part of the line with a ferro-dielectric (ferrite) retains the properties of an ordinary symmetrical quadrupole. The permeability values determined cannot be identified with the permeability of the substance because magnetic domains are in various states. The disc is different. Five references. 3 figs. 3 tables. Table; graphs; drawings.

Institution : The V. M. Molotov Electrical Engineering Institute, Moscow

Date : May 3, 1954

KOLLI, YA. N.

KOLLI, YA. N.- "On the Theory of the Measurement of Complex Dielectric Constants Using the Long-line Method." Min of Higher Education USSR, Moscow Order of Lenin Power Institute M. V. Molotov, Chair of the Theoretical Fundamentals of Electrical Engineering, Moscow, 1955 (Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

KOLLEY, Y. N., POLIVANOV, K. M., MICHKAYLOVSKIY, L. K., and FABRIKOV, V. A. (Moscow)

"Magnetodielectrics in Waveguides," a paper submitted at the International Conference on Physics of Magnetic Phenomena, Sverdlovsk, 23-31 May 56.

Kolli, Ya.N.

AUTHOR: Kolli, Ya.N.

TITLE: II. Active and Reactive Load Method. Ferrite Ring in Co-axial Line. (II. Metod aktivnoy i reaktivnoy nagruzok. Ferritovaya shayba v koaksialnoy linii).

PERIODICAL: Izvestiya Akademii Nauk, Vol. XX, #11, pp 1267-1273 1956, USSR, Seriya fizicheskaya

ABSTRACT: This article is the continuation of a previous work (1), in which the drawbacks of a widely used method, the method of idle run and short cut, for determination of magnetic and dielectric permeabilities were pointed out. This method can be considerably improved, if determination of input resistances corresponding to the idle run and short out are performed by the proposed method of active and reactive loads, on the basis of a series of measurements.

The results of these measurements are then represented graphically, by constructing certain circles, geometrical loci of points denoting the values of

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TITLE:

II. Active and Reactive Load Method. Ferrite Ring in Co-axial Line. (II. Metod aktivnoy i reaktivnoy nagruzok. Ferritovaya shayba v koaksialnoy linii). input resistances at active or reactive loads. This method permits to find input resistances Z_x and Z_k , if the following data are known: the circle, a geometrical locus of points denoting the values of input resistances at reactive loads, and the value of input resistance of the line at one value of active load. When Z_x and Z_k are found, the values of μ and ϵ are computed by the known formulas. The proposed method of measurements and derivation of results was experimentally checked on nickel-zinc ferrites of grade 0-400. The samples investigated had the shape of a ring, 16 mm in external diameter, and an inner diameter of 5 mm. The results of measurements of input resistances carried out at a frequency of 2.92×10^9 megacycles are shown in Fig. 4. The values of μ and ϵ , computed according to the experimental data agree well with the data published in scientific literature.

Card 2/3

TITLE:

II. Active and Reactive Load Method. Ferrite Ring in Co-axial Line. (II. Metod aktivnoy i reaktivnoy nagruzok. Ferritovaya shayba v koaksialnoy linii). The bibliography lists 4 references, of which 2 are Slavic (Russian). The article contains 7 figures and 1 appendix.

INSTITUTION:

Power Engineering Institute imeni V.M. Molotov in Moskva.

PRESENTED BY:

SUBMITTED:

No date

AVAILABLE:

At the Library of Congress

Card 3/3

Kolli, Ya.N.

Kolli, Ya.N.

AUTHORS: Fabrikov, V.A. and Kolli, Ya.N.

TITLE: Approximate Computation Methods of Gyromagnetic Media (Priblizhennyye metody rascheta giromagnitnykh sred)

PERIODICAL: Izvestiya Akademii Nauk, Vol. XX, #11, pp 1329-1335 1956, USSR, Seriya fizicheskaya.

ABSTRACT: The possibility of engineering computations in some cases of gyromagnetic media application is shown. The problem is considered about a gyromagnetic ring of finite thickness, which fills the cross section of a round wave guide with an arbitrary load at the end.

Solution of the problem is possible in one of the two approximations: the approximation of plane waves and the approximation in which the medium is assumed to be weakly gyromagnetic.

Formulae are derived for the coefficient of reflection and the coefficient of polarization, and these coefficients are connected with electromagnetic para-

Card 1/2

TITLE:

Approximate Computation Methods of Gyromagnetic Media (Priblizhennyye metody rascheta giromagnitnykh sred)

meters of the substance.

Computation formulae obtained for the weakly gyromagnetic media in a round wave guide were used, and confirmed in an investigation of the Faraday effect in paraffin-ferrite mixtures. The bibliography lists 11 references, of which 6 are Slavic (Russian). The article is supplemented with 2 appendixes.

INSTITUTION:

Power Engineering Institute imeni V.M. Molotov in Moskva

PRESENTED BY:

SUBMITTED:

No date

AVAILABLE:

At the Library of Congress

Card 2/2

KOLLI, Ya. N.

Use of a coaxial line in measuring magnetic permeability
and dielectric permittivity. Izv. vys. ucheb. zav.; radiotekh.
no.6:658-671 N-D '59. (MIRA 13:6)

1. Rekomendovana kafedroy teoreticheskikh osnov elektrotekh-
niki Moskovskogo ordena Lenina energeticheskogo instituta.
(Coaxial cables) (Dielectric constants—Measurement)
(Magnetic measurements)

24 (3)

AUTHORS:

Polivanov, K. M., Kolli, Ya. N.,
Soboleva, L. P.

SOV/48-23-3-8/34

TITLE:

Permeability and Losses of Magnetodielectrics
(Pronitsayemost' i poteri magnetodielektrikov)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 3, pp 311-317 (USSR)

ABSTRACT:

It is known (Ref 1) that the measured apparent loss angle tangent $\text{tg } \delta_{\mu}$ within the Rayleigh limit of the field depends on the potential amplitude of the field E_t and on the frequency ω :

$$\text{tg } \delta_{\mu} = a_0 + a_1 N_t + a_2 \omega$$

In the present paper these components were analyzed at a sinusoidal change of the field and at relatively low frequency. The problem of the derivation of the formulas which connects the average permeability of the magnetodielectric with magnetic permeability of the ferromagnetic phase at a sinusoidal change of the field was investigated already in detail (Refs 6, 7 and 8). At a weak concentration all these

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Permeability and Losses of Magnetodielectrics

SOV/48-23-3-A/34

formulas yield similar results. In the present paper the generalization was made according to the formula by Likhterman

$$\mu = \mu_{\text{equiv}}^p = |\mu_{\text{equiv}}| e^{-p\delta_{\text{equiv}}}$$

for small angles $\text{tg}\delta_{\mu} = p \text{tg}\delta_{\text{equiv}}$ may be written instead

of $\delta_{\mu} = p\delta_{\text{equiv}}$. $\text{tg}\delta_{\mu}$ consists of the same components as $p \text{tg}\delta_{\text{equiv}}$ each of them, however, being changed p times. On

the basis of the analysis carried out the following method for the division of the losses may be suggested: 1) $\text{tg}\delta_{\mu} = f(\omega)$ is taken at $N_t = \text{const}$ (Figure). 2) The experimental curve

is extrapolated to $\omega = 0$. The section on the axis of ordinates which is separated by the curve is equated at corresponding N_t value to the hysteresis loss angle. 3) From the known μ_n

(initial permeability), μ_1 , r (radius of the spherical

particle), p (duty factor), a , b (diameter of the toroid)

and individually measured σ and σ_c the eddy current losses are computed as linear frequency functions. 4) The loss angle of magnetic viscosity is determined as the difference between

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Permeability and Losses of Magnetodielectrics

SCV/48-23-3-9/34

the experimental curve and the sum of the hysteresis loss angle and the eddy current losses. 5) A family of curves $\operatorname{tg} \delta_{\mu} = f(\omega)$ for different N_t is necessary for the division of the angular tangent of the hysteresis losses into the initial component a_0 and the Rayleigh component which depends on $N_t(a_1, N_t)$. By extrapolating them to $\omega = 0$ and by plotting the curve $\operatorname{tg} \delta_{\mu} = \varphi(N)$ at $\omega \rightarrow 0$ the section which was separated by the drawn straight line on the axis of ordinates is found. The section is equal to a_0 and the inclination of the straight line determines the quantity a_1 . There are 1 figure and 10 references, 7 of which are Soviet.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering)

Card 3/3

KOLLI, Ya. N.

PHASE I BOOK EXPLOITATION: SOV/4893
Vsesoyuznoye soveshchaniye po fizike, fiziko-khimicheskim svoystvam ferritov i fizicheskim osnovam ikh primeneniya. 3d, Minsk, 1959
Ferrity: fizicheskiye i fiziko-khimicheskiye svoystva. Doklady (Ferrites; Physical and Physicochemical Properties. Reports) Minsk, Izd-vo AN BSSR, 1960. 655 p. Errata slip inserted. 4,000 copies printed.

Sponsoring Agencies: Nauchnyy sovet po magnetizmu AN SSSR. Otdel fiziki tverdogo tela i poluprovodnikov AN BSSR.

Editorial Board: Resp. Ed.: M. M. Sirota, Academician of the Academy of Sciences BSSR; K. P. Belov, Professor, V. I. Kondorovskiy, Professor; K. M. Polivanov, Professor; R. V. Tolstunin, Professor; G. A. Smolenskiy, Professor; N. M. Shpil'ts, Candidate of Physical and Mathematical Sciences; E. M. Smolyarenko; and L. A. Baskirov; Ed. of Publishing House: S. Khol'yavskiy, Tech. Ed.; I. Volokhanovich.

PURPOSE: This book is intended for physicists, physical chemists, radio electronics engineers, and technical personnel engaged in the production and use of ferromagnetic materials. It may also be used by students in advanced courses in radio electronics, physics, and physical chemistry.

COVERAGE: The book contains reports presented at the Third All-Union Conference on Ferrites held in Minsk, Belorussian SSR. The reports deal with ferrite transformations, electrical and galvanomagnetic properties of ferrites, studies of the growth of ferrite single crystals of ferrites, studies of the chemical and physicochemical analysis of ferrites, studies of ferrites having rectangular hysteresis loops and multivalent ferrite systems exhibiting spontaneous rectangularity, properties of ferrite systems exhibiting spontaneous rectangularity, properties of ferrite systems exhibiting resonance, magneto-optics, physical properties of ferrite systems, properties of ferrite systems, properties of ferrite systems, properties of ferrite systems, etc. The Committee on Magnetism, AN BSSR (S. V. Vonsorvskiy, Chairman) organized the conference. Referenced accompany individual articles.

Ferrites (Cont.)

Boboleva, L. P., and Ya. N. Kolli. Dynamics of the Reversal of Magnetization of a Ferrite Bar With a Rectangular Cross Section 364
Brin, I. A., G. P. Lisitsyn, and Yu. M. Shumayev. The Surface Effect in a Ferrite Plate With Rectangular Hysteresis Loop 377
Shumayev, Yu. M. Stability of Particular Cycles and "Accommodation" During Pulsed Reversal of Magnetization of Ferrites With Rectangular Hysteresis Loop 386
Shumayev, Yu. M., A. I. Pirogov, and V. F. Belyavskiy. Pulsed Reversal of Magnetization of Ferrites With Rectangular Hysteresis Loop 391
Rabkin, L. I., and B. Zh. Zaslavskiy. Ferrites With Rectangular Hysteresis Loop in Weak Fields 401

Card 12/18

Card 4/8

KOLLI, Ya.N.; FRUMKIN, A.L.

Concerning the accuracy of a resonance method for measuring small variations of capacitance and inductance. Izv.vys.ucheb.zav.; radiotekh. 5 no.5:646-648 S-0 '62. (MIRA 15:11)

1. Rekomendovano kafedroy teoreticheskikh osnov elektrotehniki Moskovskogo ordena Lenina energeticheskogo instituta.
(Inductance--Measurement) (Electronic measurement)

KOLLI, Ya.N.

Use of a Q-meter for measuring permeability. Izv. vys. ucheb.
zav.; radiotekh. 6 no.5:548-555 S-O '63. (MIRA 17:1)

1. Rekomendovana kafedroy teoreticheskikh osnov elektrotehniki
Moskovskogo energeticheskogo instituta.

COMMON ELEMENTS										PROCESS AND PROPERTIES INDEX										1ST AND 2ND COVERS										3RD AND 4TH COVERS									
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<p>Protein metabolism of the liver as a test of the non-specific action of protein adjuvants on the organism. B. Kolli. <i>Problemy Endokrinol.</i> 1936, No. 1, 3-7; <i>Chem. Zvezd.</i> 1938, 1, 933. -- The influence of horse serum, pepsin lyzate of casein, and the autolyzates of liver, spleen, kidney, muscle, and heart on the protein metabolism of the liver was investigated. Mice were injected with these materials intraperitoneally. The mice were killed at various times (different intervals) following injection and the ratio of residual N to total N in the liver was detd. Two hrs. after the injection of 0.1 cc. of horse serum the N coeff. was increased by 21%; 18 hrs. after the injection of the same amt. the increase was 50% and 23 hrs. after it was 30%. After the injection of 0.1-0.25 cc. of casein lyzate the N coeff. was increased by varying amts. ranging from 18 to 79%. The other lyzates produced no detectable effect. Injection of fermented lyzates of liver, kidney, and spleen increased the N coeff. by 30%. M. G. M.</p>																																							
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BC																			
<p>Action of the pituitary hormone "Lipoltrin" on fat and carbohydrate metabolism. E. KOLL (Bull. Biol. Méd. exp. U.R.S.S., 1956, 2, 200-201). The hormone (I) controls fat absorption by the liver, the absorption being accompanied by loss of glycogen. Hence (I) affects carbohydrate metabolism. NUTR. Abs. (m)</p>																			
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11 12 13 14 15 16 17 18 19 20										21 22 23 24 25 26 27 28 29 30									

KOLLI, E. A.

"Changes of Sulfur-Containing Aminoacids within the Protein Molecule, and the
Influence of Thyroid Hormone," *Biochim.*, 11, No.5, 1946

Inst. of Experimental Endocrinology, Moscow

... of the thyroid gland ...
... on the thyroid gland ...
... of the thyroid gland ...
... 273-2 (1954). -- Caffeine doses (5-128 mg.)
and phenanthrene doses (0.03 mg.) augmented the absorption
of radio-I by the thyroid gland. The effect becomes ap-
parent on the 3rd day and lasts for 8-10 days after drug ad-
ministration. Beyond this period a reduction in absorp-
tion of the radio-I is observed. The increase in absorp-
tion of the radio-I is accompanied by an increase in the ab-
sorption of the thyroid gland and in the amount of organo-
iodine in the thyroid gland.

KOLLI, Ye.A. (Moskva)

Triiodothyronine, a new hormone of the thyroid. Probl. endokr.
i gorm. Moskva 1 no.3:119-122 My-Je '55. (MLRA 8:10)

1. Iz otdela biokhimii Vsesoyuznogo instituta eksperimental'noy
endokrinologii (dir.-prof. Ye.A.Vasyukova)
(THYROID GLAND, hormones,
triiodothyronine)

KOLLI, Ye.A.; SHTEGEMAN, N.A.; VINOGRADOVA, N.I. (Moskva)

Thyroid function tests with radioiodine among the population of the region of Abakan railroad construction. Probl. endokr. i gorm. 1 no.5:43-53 S-0 '55. (MLRA 8:10)

1. Iz Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir.--prof. Ye.A. Vasyukova) i Tsentral'noy nauchno-issledovatel'skoy laboratorii gigiyeny i epidemiologii (nach. B.A. Ivanov) Ministerstva putey soobshcheniya.

(THYROID GLAND, function tests

radioiodine, in areas of endemic goiter in Russia)

(IODINE, radioactive,

thyroid funct. test in areas of endemic goiter in Russia)

Kolli, E. A. *Excerpta Medica*, Sec. 3 Vol. 12/6 Endocrinology June 58

1975. THE USE OF I^{131} IN EARLY DIAGNOSIS OF THYROTOXICOSIS (Russian text) - Kolli E. A. and Shategeman N. A. - *PROBL. ENDOCRIN.* 1975, 1 (35-43)

482 persons aged 17-72 yr. were investigated. In 129 of these the differentiation between thyrotoxicosis and neurosis became necessary. The degree and the rate of absorption of I^{131} by the thyroid gland were studied. It was found that the indices of absorption at different terms after introduction of I^{131} have a different diagnostic significance. For an early diagnosis the data of absorption during 1 hr. are the most significant; the degree of severity of thyrotoxicosis is indicated by the indices of 2-hr. and 4-hr. absorption, and hypofunction of the thyroid gland is evidenced by the data of the 24-hr. and later absorption. The absorption curves in mild forms of thyrotoxicosis are differentiated from those of a normal thyroid gland by a more marked rise of absorption in the first hours. In thyrotoxicosis cases of different degrees of severity no complete conformity between the clinical picture of the disease and the degree of absorption of I^{131} could be noticed. The use of I^{131} allows a fine differentiation between masked forms of thyrotoxicosis and non-thyrotoxic neuroses.

(S)

A-U. Inst. Exptl. Endocrinology

KOLLI, Y^a A.

"Investigating the Influence of Various Factors on the Processes of Biological Synthesis of Thyroxine in the Thyroid Gland", by Y^a A. Kolli.

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958.

KOLLI, Ye. A.: Doc Biol Sci (diss) -- "Hormone production in the thyroid gland".
Moscow, 1958. 16 pp (Acad Med Sci USSR), 200 copies (KL, No 1, 1959, 116)

KOLLI, Yevgeniya Antonovna; ORLYANSKAYA, R.L., red.; ZUYEVA, N.K., tekhn.red.

[Radioactive tracers in studying the biological synthesis and
metabolism of hormones] Radioaktivnye indikatory v izuchenii
biologicheskogo sinteza i obmena gormonov. Moskva, Gos.izd-vo
med.lit-ry, 1959. 131 p. (MIRA 13:1)

(TRACERS (BIOLOGY))

(HORMONES)

KOLLI, Ye. A.

21(N); 17(0) PAGE 1 BOOK EXPLOSTICION 907/2000
 International Conference on the Peaceful Uses of Atomic Energy, 24, Geneva, 1958
 Dobylye sovetskikh uchebnykh; radiobiologiya i radiatsionnaya medicina
 (Reports of Soviet Scientists; Radiobiology and Radiation Medicine)
 Moscow, Izdatel'stvo Gilek, 1959. 429 p. 9,000 copies printed. (Series:
 Sovetskaya literatura izdaniy, 1959. 429 p. 9,000 copies printed. (Series:
 Yuzhnyy meditsinskoye konferentsiya po mirovomu ispol'tovaniyu atomnoy energii.
 Trudy, tom 5)

General M.I. A.V. Lebedevskiy, Corresponding Member, USSR Academy of Medical
 Sciences; M.I. S.S. Shadrin, Tech. M.I. Ts.I. Kuznetsov.

PURPOSE: This book is intended for physicians, scientists, and engineers
 as well as for professors and students at various where radiobiology and
 radiation medicine are taught.

CONTENTS: This is Volume 5 of a 6-volume set of reports delivered by Soviet
 scientists at the Second International Conference on the Peaceful Uses of
 Atomic Energy, held on September 1-13, 1958 in Geneva. Volume 5 contains
 24 reports edited by Candidates of Medical Sciences S.V. Levitskiy and V.V.
 Zolotarev. The reports cover problems of the biological effects of ionizing
 radiation, direct consequences of radiation in small doses, genetic effects
 of radiation, treatment of radiation sickness, uses of radioactive isotopes
 in medical and biological research, uses of atomic energy for diagnostic
 and therapeutic purposes, radiobiology, description of atomic fusion products,
 their intake by plants, and their storage in plants and foodstuffs.
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 Central Cortex (Report No. 2002) 220
- Lebedevskiy, M.I. Effect of Various Factors on the Biosynthesis of Thyroid Pro-
 teins by the Thyroid Gland (Report No. 2075) 225
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- Lebedevskiy, M.I. Being C¹⁴ and P³² in Study Metabolism in Muscles (Report No.
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 Therapeutic Purposes (Report No. 2058) 286
- Lebedevskiy, M.I., S.P. Belobayeva, Isotopic Radiobiology and
 Radiobiology of the Localization of Kala Tumors (Report No. 2000) 307
- Lebedevskiy, M.I., and S.P. Belobayeva. Studying the Fast Translocation of Substances
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- Lebedevskiy, M.I., M.A. Pechenkin, S.O. Pechenkin, V.A. Pechenkin, V.O. Pechenkin,
 and S.P. Belobayeva. Being Radioactive Isotopes, O¹⁸, P³², and C¹⁴ in the
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 Hormones (Report No. 2071) 329
- Lebedevskiy, M.I., L.M. Sokolova, and O.E. Trilishchova. Copying of
 Microphotocopies of Strontium and Cesium in Cells (Report No. 2110) 346

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KOLLI, Ye. A.

"The Dynamics of Hormone Formation in the Thyroid Gland in Radiation Sickness."

Theses of the Proceedings of the Annual Scientific Sessions 23-26 March 1959
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From the All-Union Institute of Experimental Endocrinology (Director--
Professor Ye. A. Vasyukova)

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"Effect of Compounds Stimulating Thyroid Gland Function
on the Individual Stages of Thyroid Hormone Biosynthesis."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 August 1961

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SO: Sum. No.521, 2 Jun 55